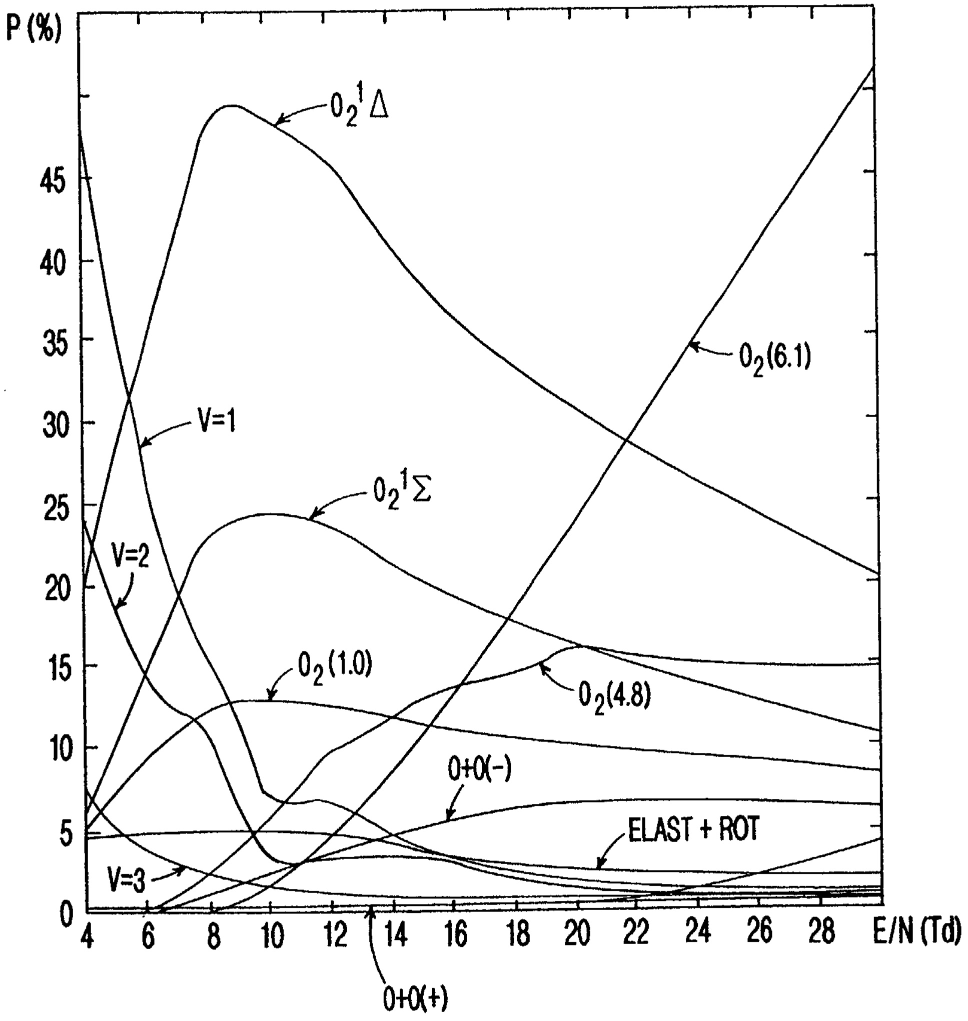

REACTIONS AT 10 Td			
	6.5%	$O_2 + e^- \rightarrow$	O_2 (v=1) + e^-
	3%	$O_2 + e^- \rightarrow$	O_2 (v=2) + e^-
	2%	$O_2 + e^- \rightarrow$	O_2 (v=3) + e^-
$O_2{}^1\Delta$	48.5%	$O_2 + e^- \rightarrow$	O_2 (0.98) + e^-
	~13%	$O_2 + e^- \rightarrow$	O_2 (1.0) + e^-
$O_2{}^1\Sigma$	~24.5%	$O_2 + e^- \rightarrow$	O_2 (1.63) + e^-
	6%	$O_2 + e^- \rightarrow$	O_2 (4.8) + e^-
	2%	$O_2 + e^- \rightarrow$	O_2 (6.1) + e^-
		$O_2 + e^- \rightarrow$	O_2 (8.4) + e^-
	~ 2%	$O_2 + e^- \rightarrow$	O + O^-
	~1%	$O_2 + e^- \rightarrow$	O + O(+) + e^-
		$O_2 + e^- \rightarrow$	$O_2 + e^- + e^-$
	5%	ELASTIC + ROTATIONAL	

FIG-1

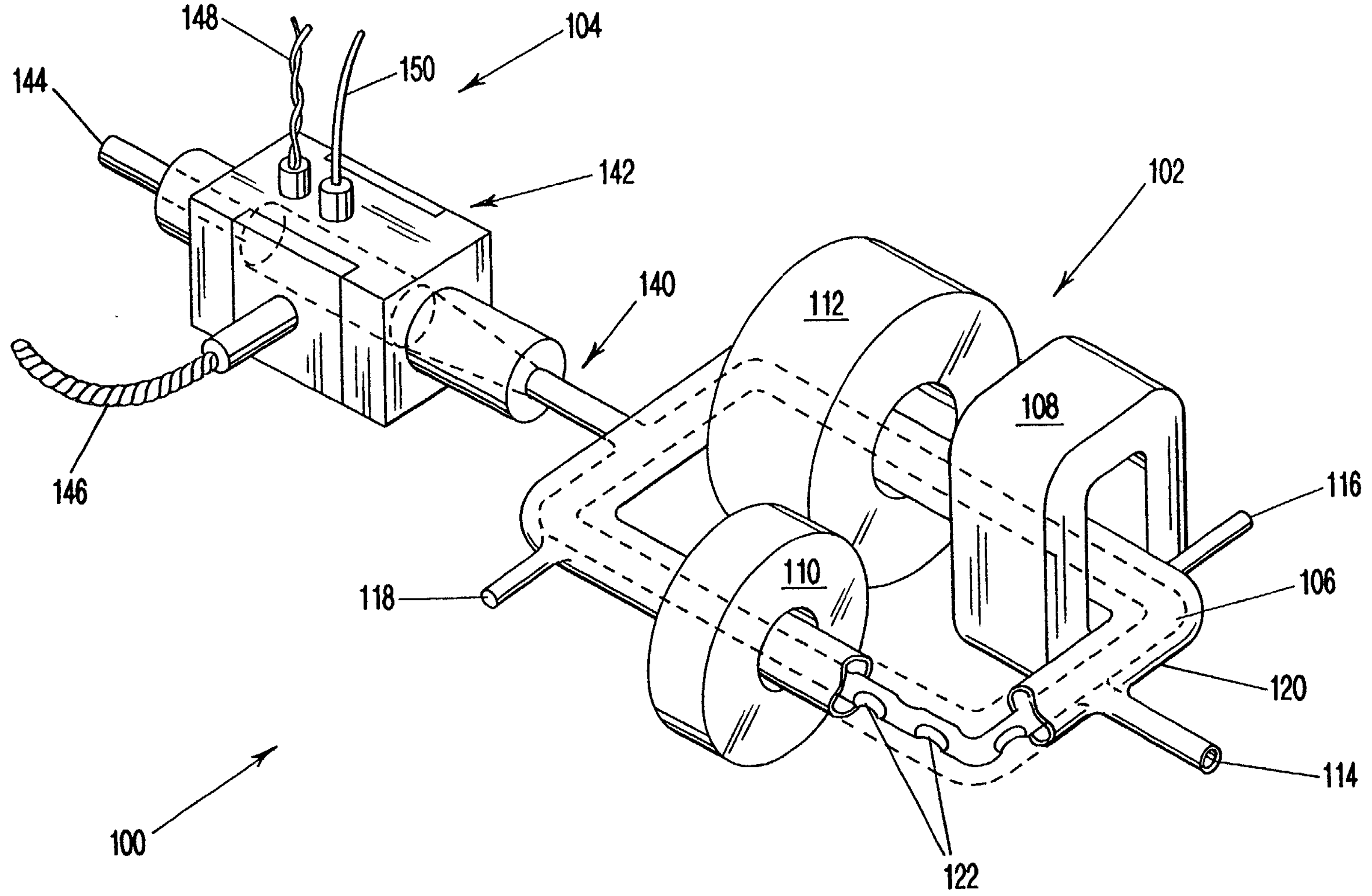
148
104
150
144
142
102
140
112
108
146
116
118
110
106
120
114
100
122

FIG-2

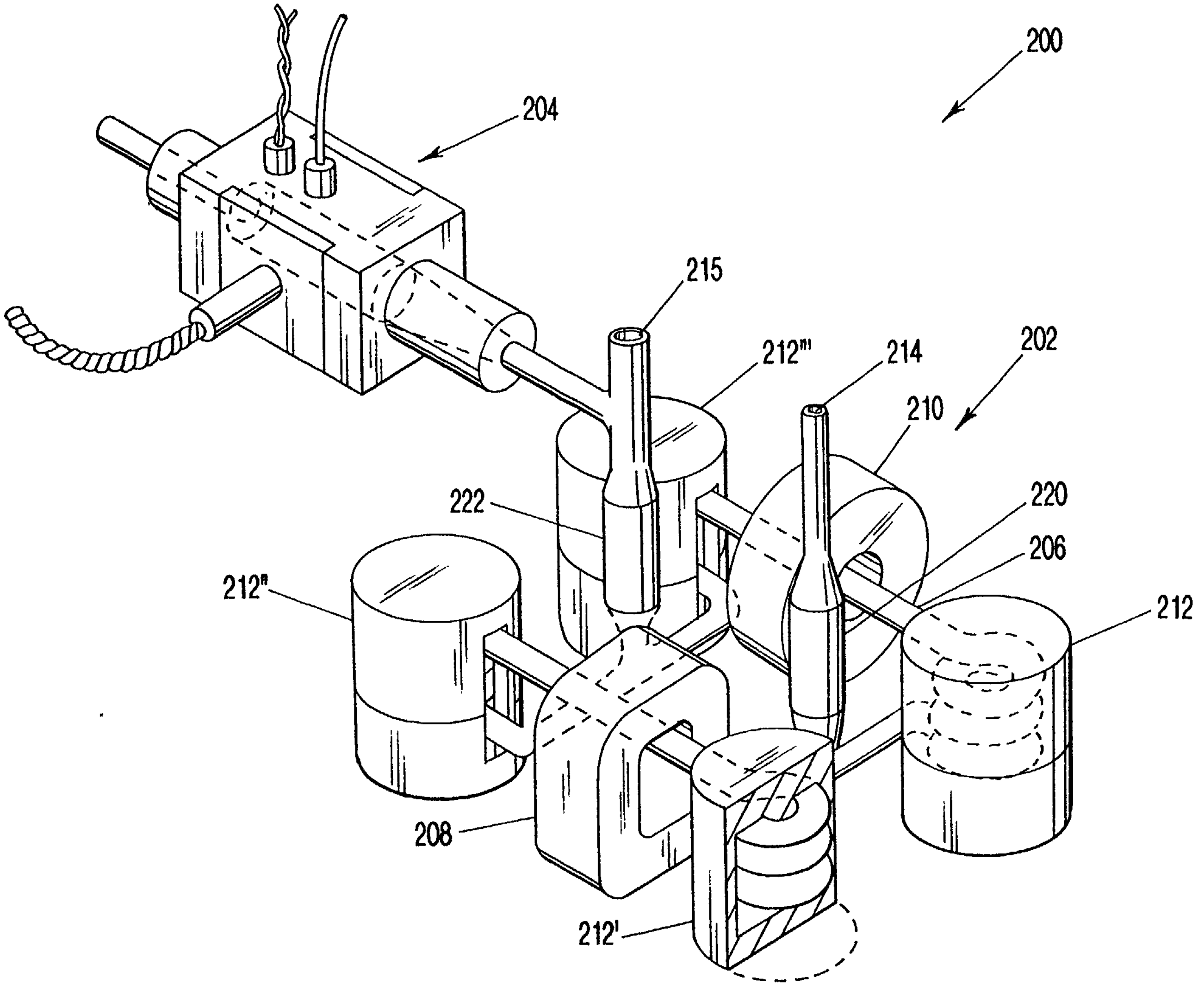

FIG-3

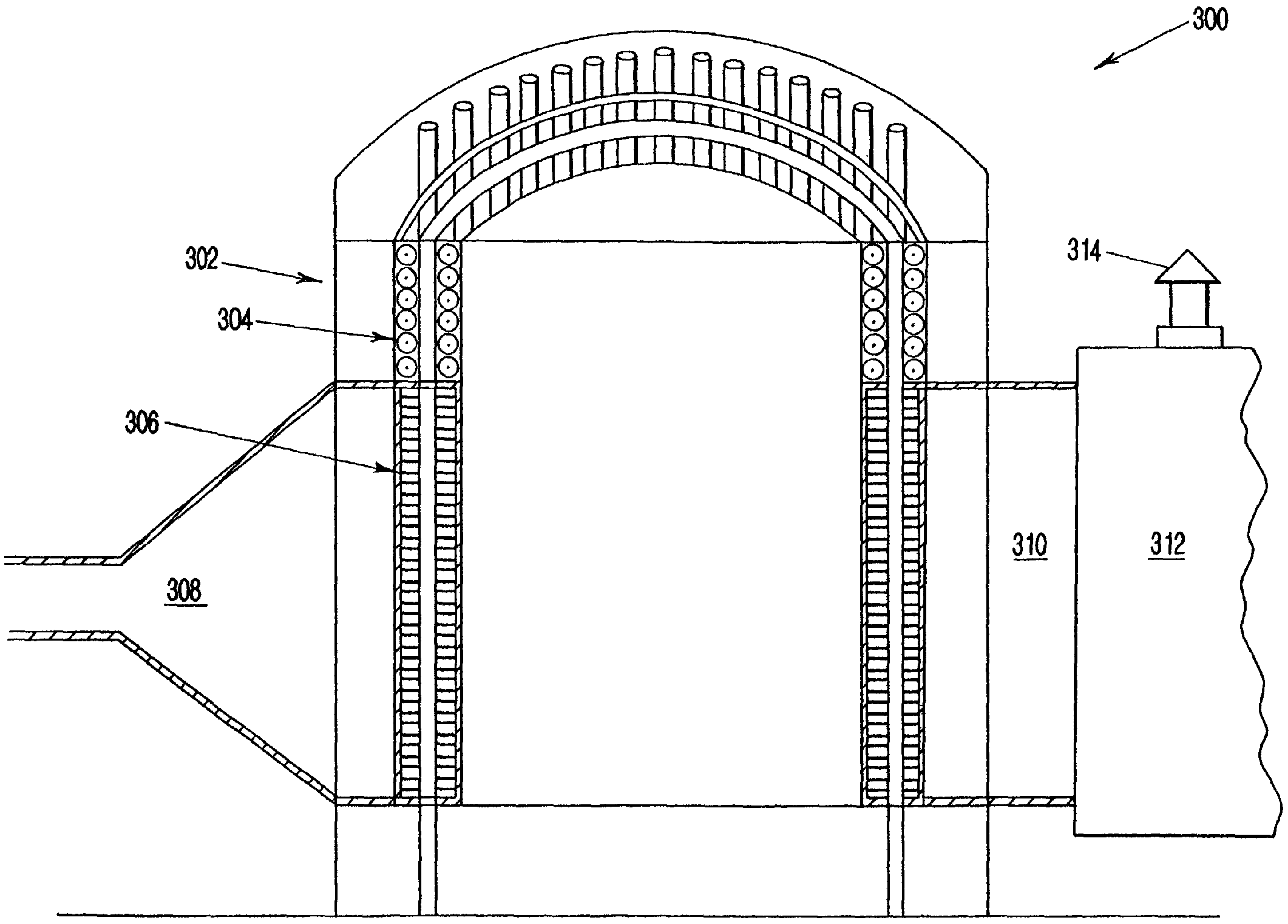

FIG-4

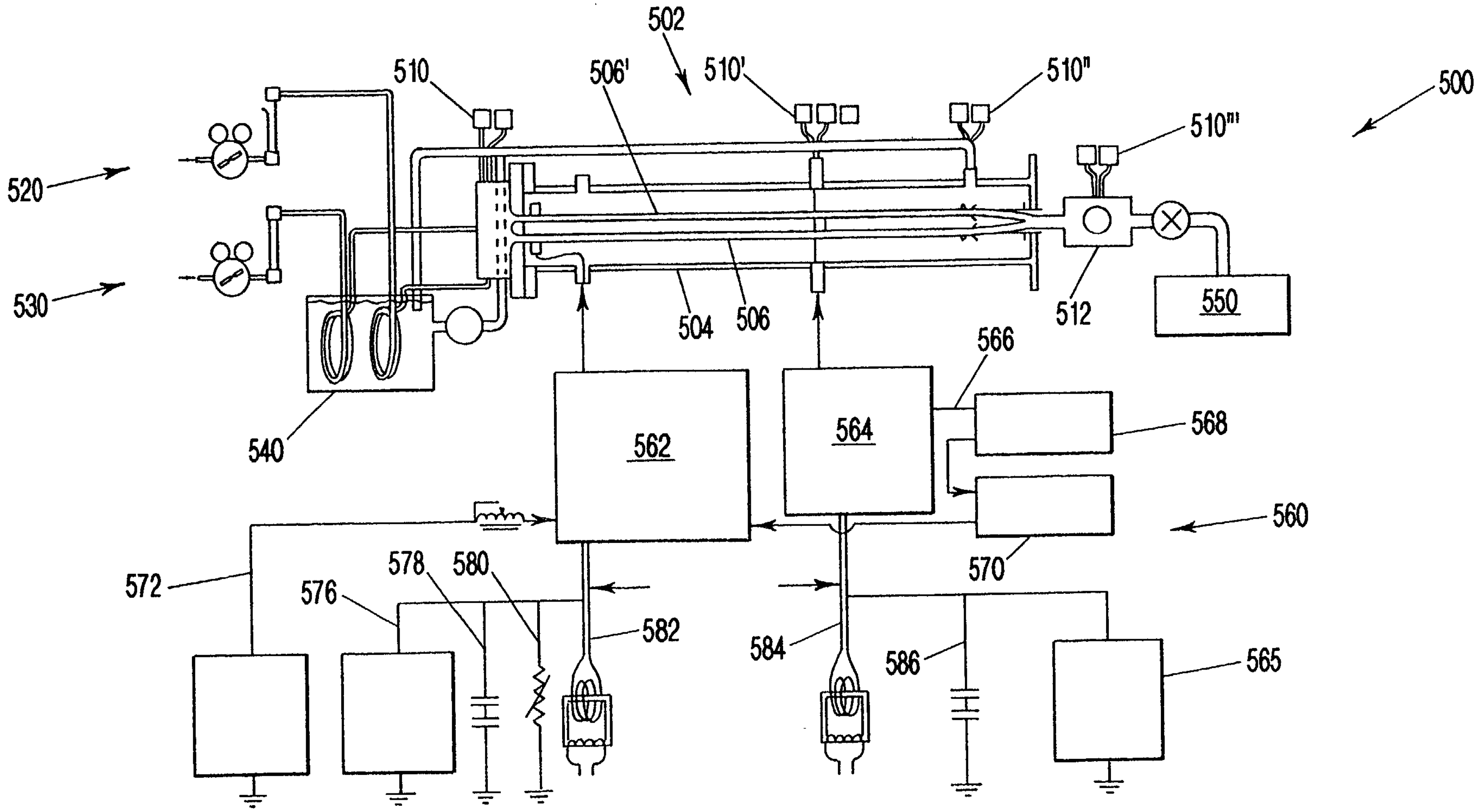
500
502
506'
510
510'
510"
510'"
520
530
540
504
506
512
550
562
564
566
568
560
570
572
576
578
580
582
584
586
565

FIG-5

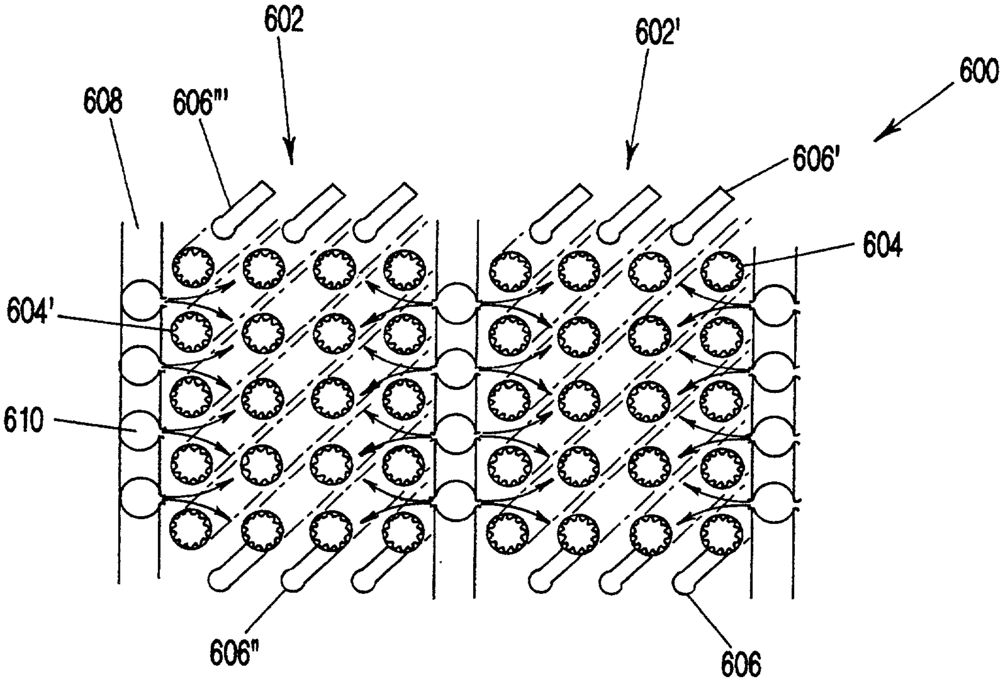

FIG-6a

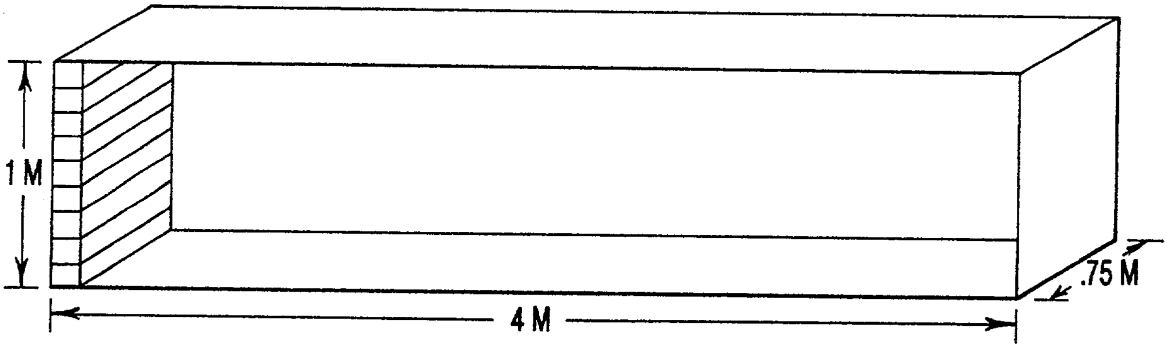

FIG-6b

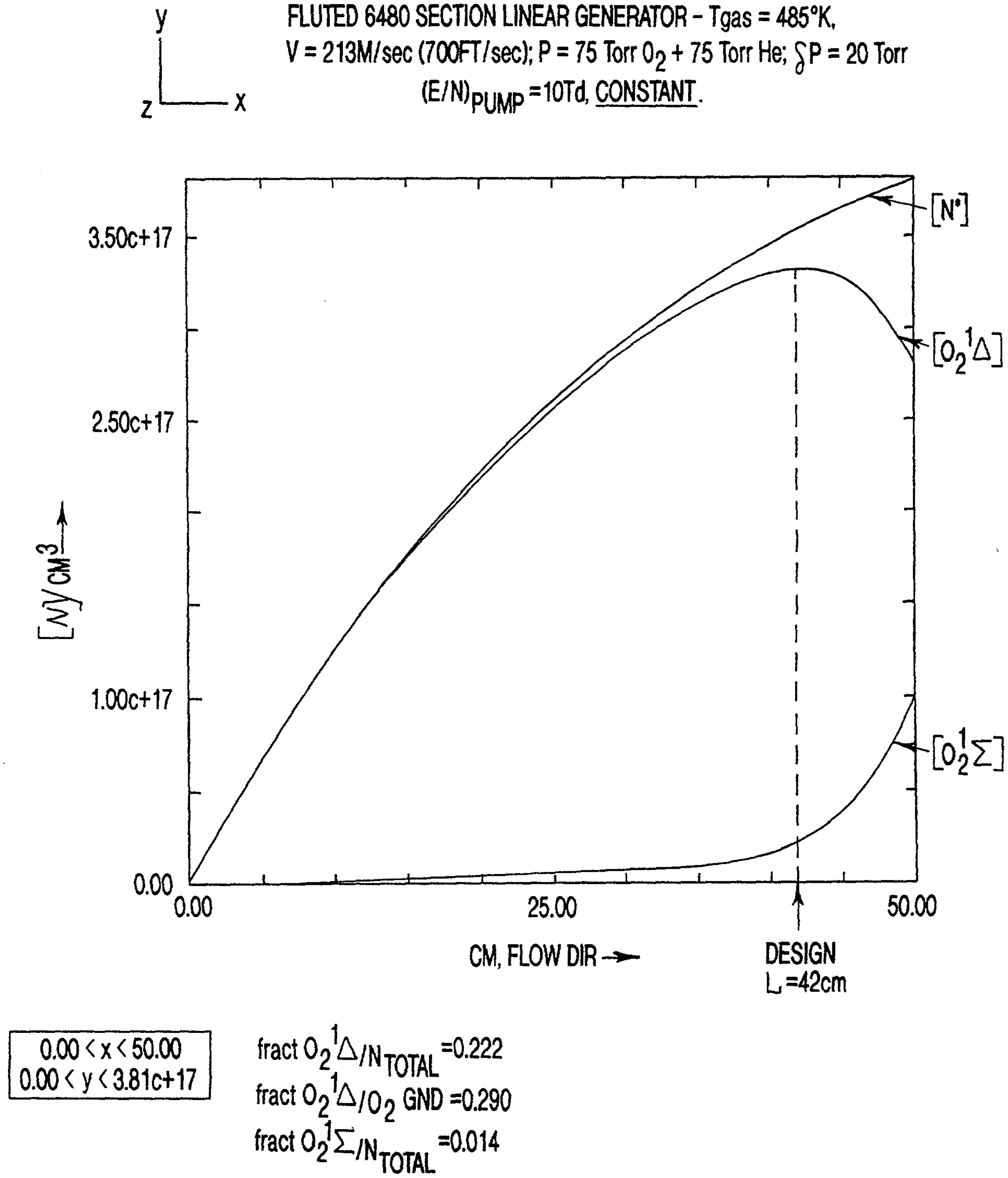
y
z
x
FLUTED 6480 SECTION LINEAR GENERATOR – Tgas = 485°K,
V = 213M/sec (700FT/sec); P = 75 Torr O_2 + 75 Torr He; δP = 20 Torr
$(E/N)_{PUMP}$ =10Td, CONSTANT.
3.50c+17
2.50c+17
1.00c+17
0.00
[N]/CM³ →
0.00
25.00
50.00
CM, FLOW DIR →
DESIGN
L =42cm
[N*]
$[O_2{}^1\Delta]$
$[O_2{}^1\Sigma]$
0.00 < x < 50.00
0.00 < y < 3.81c+17
fract $O_2{}^1\Delta/N_{TOTAL}$ =0.222
fract $O_2{}^1\Delta/O_2$ GND =0.290
fract $O_2{}^1\Sigma/N_{TOTAL}$ =0.014

FIG-7

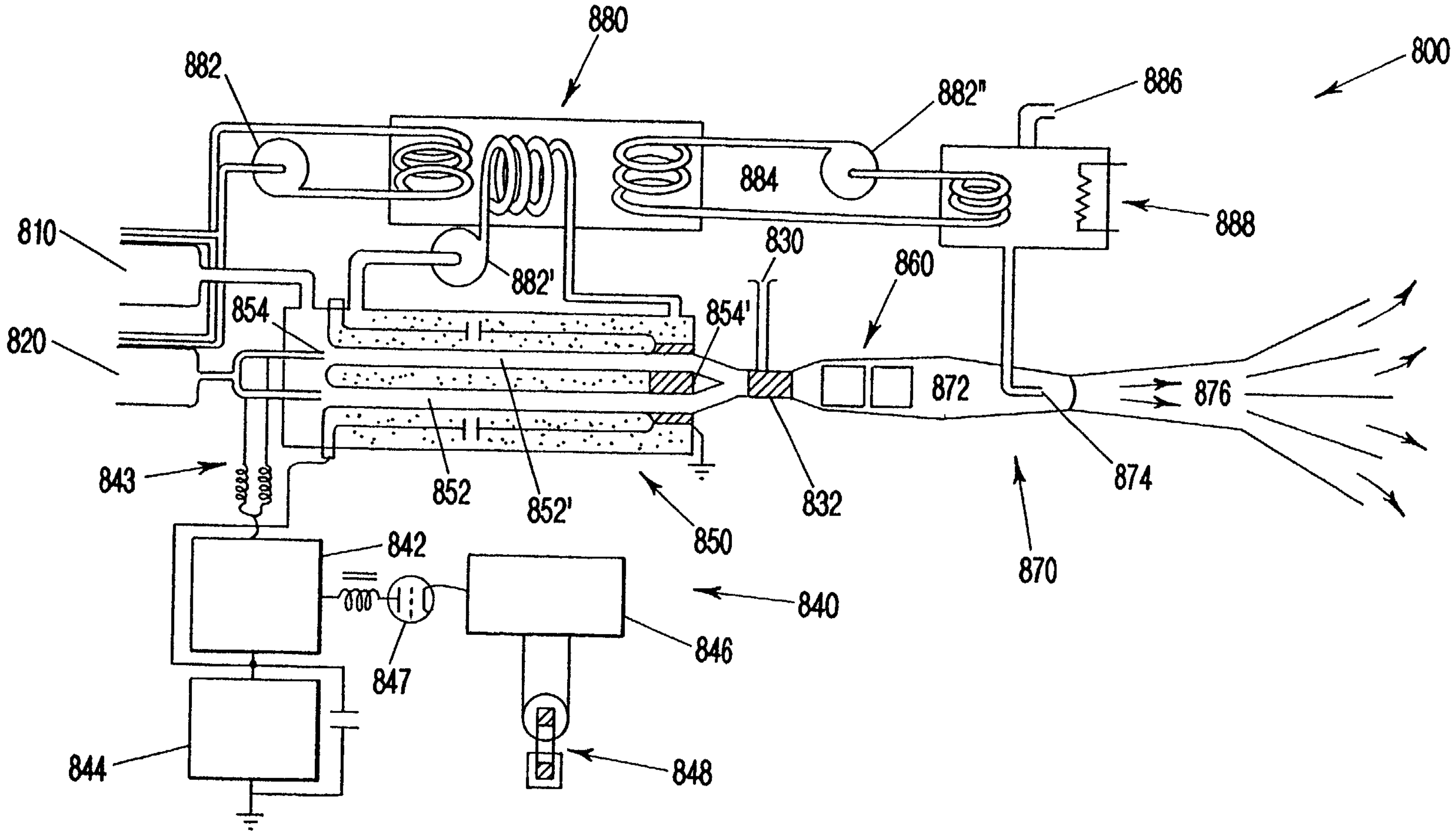
880
882
800
882"
886
810
884
888
830
860
820
854
882'
854'
872
876
843
852
852'
832
874
850
870
842
840
846
847
844
848

FIG-8a

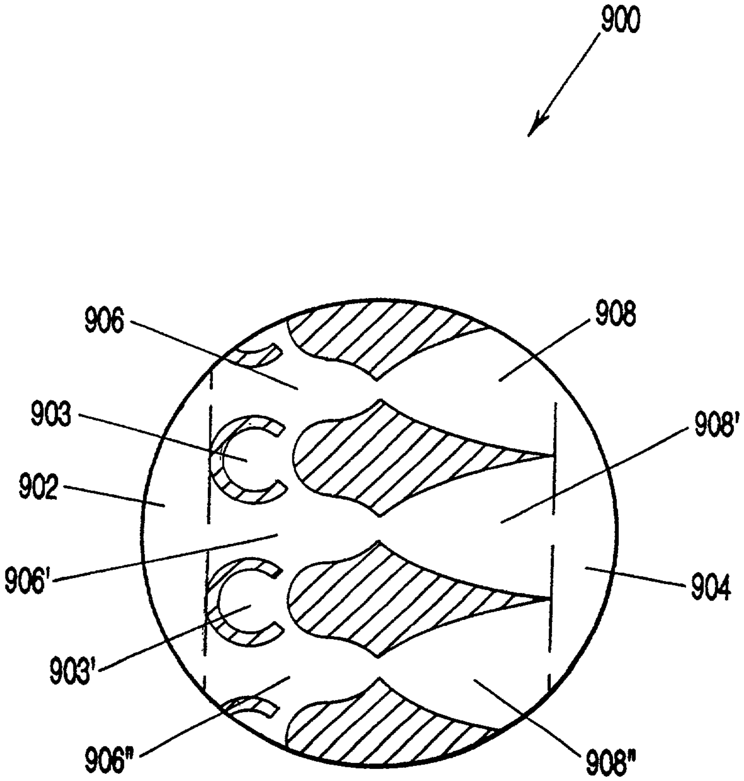

FIG-8b

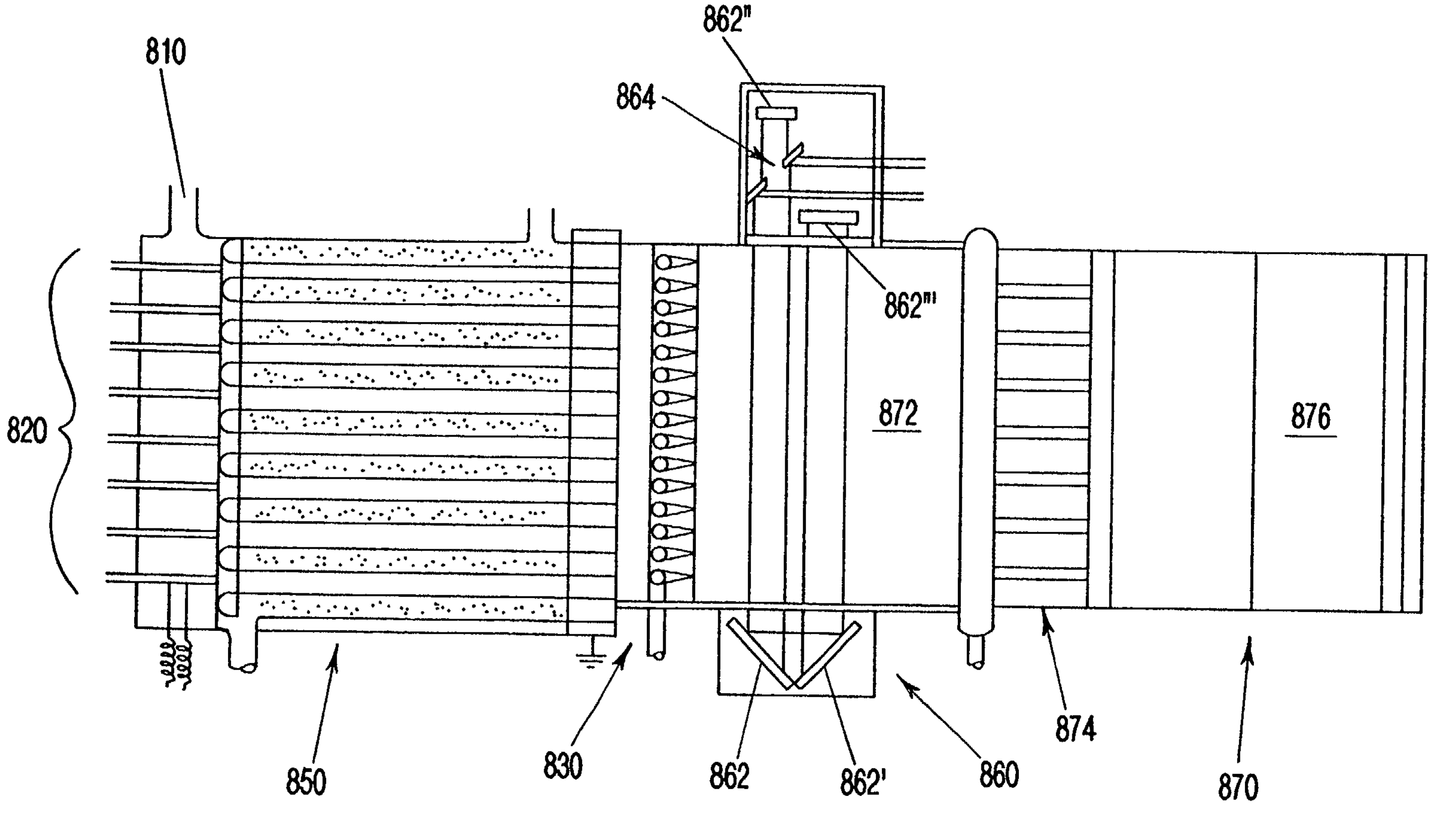

FIG-8c

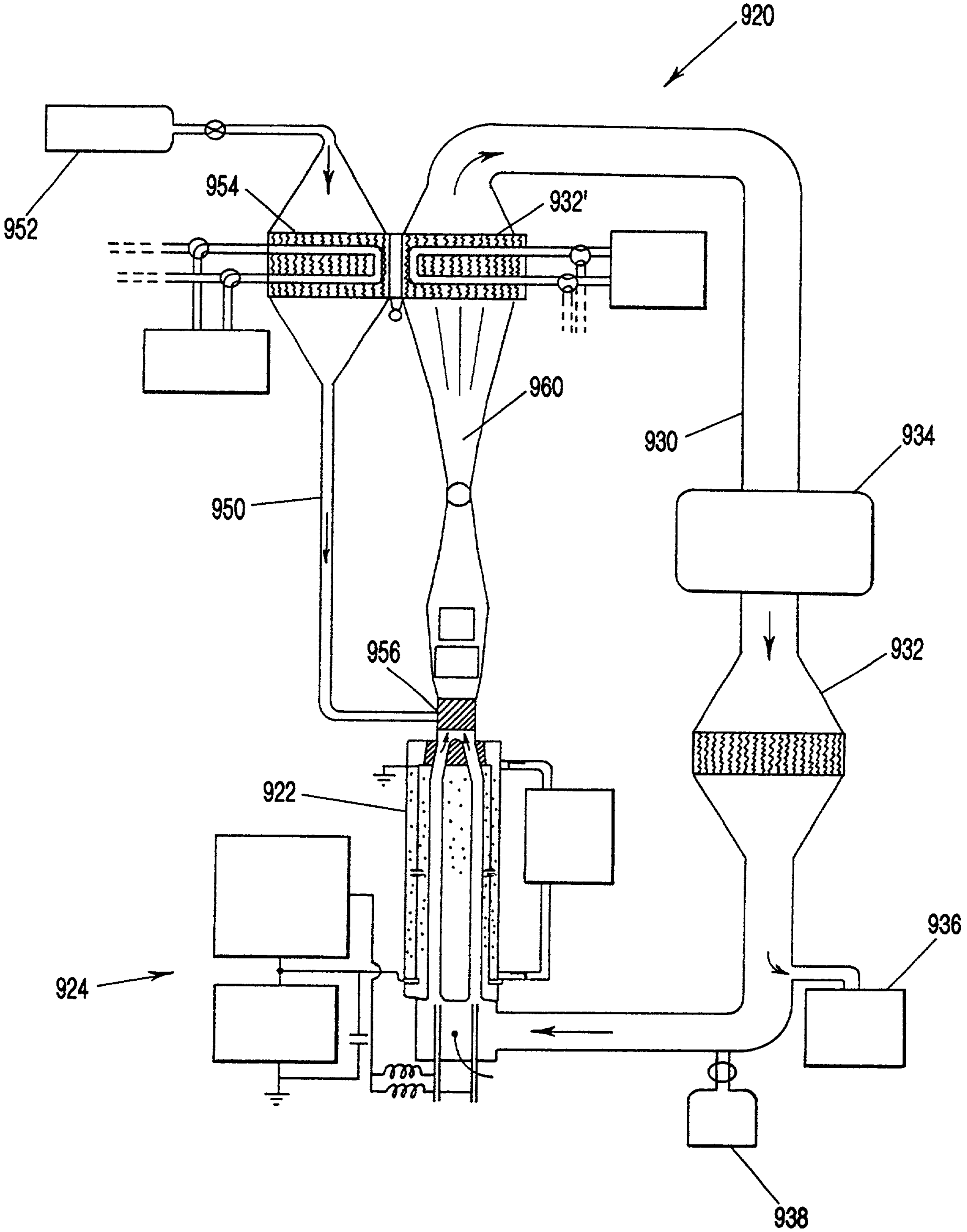

FIG-9

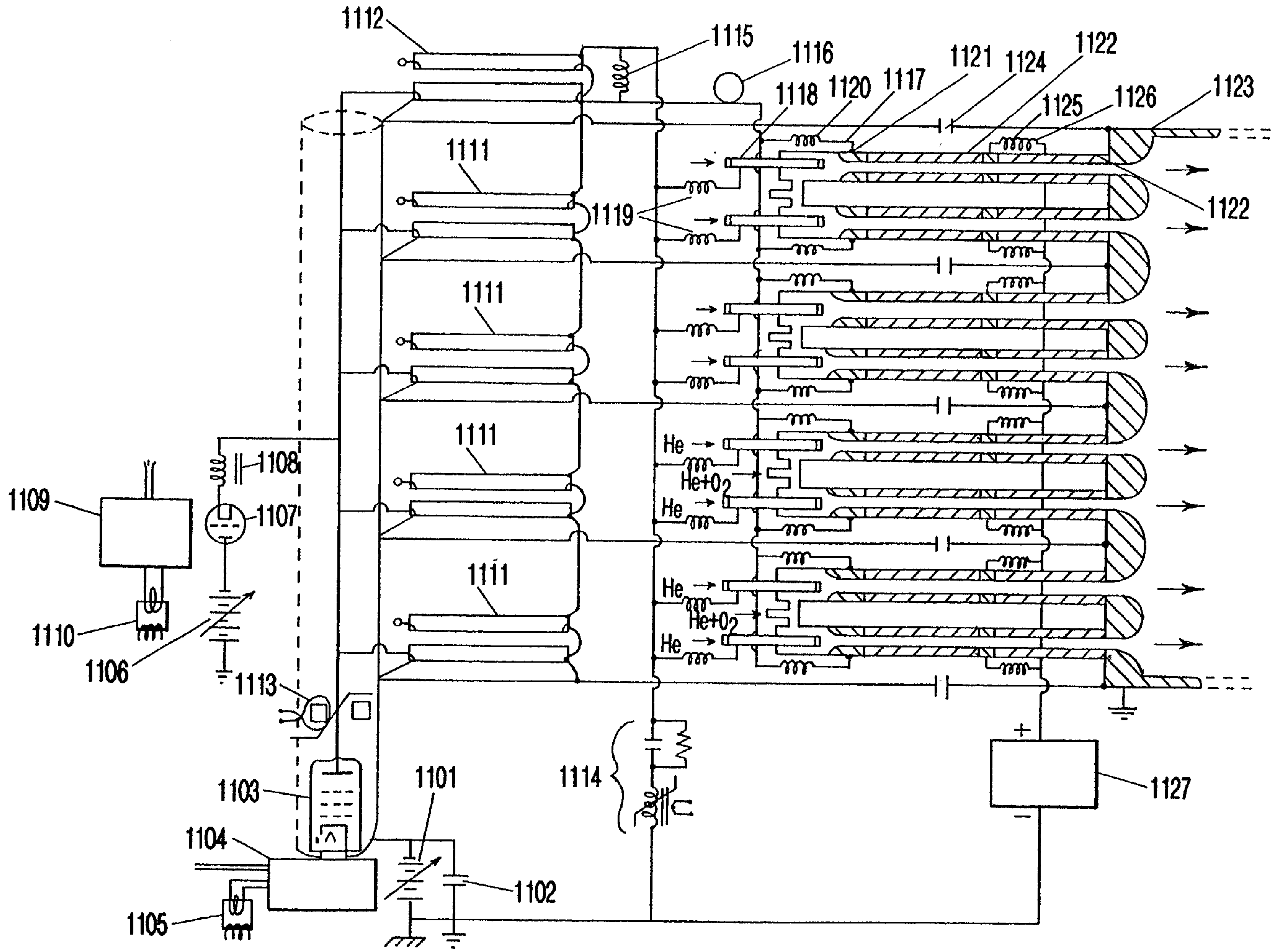
1112
1115
1116
1118
1120
1117
1121
1124
1122
1125
1126
1123
1122
1111
1119
1111
1111
1111
He
He+O2
He
He
He+O2
He
1109
1108
1107
1110
1106
1113
1103
1104
1105
1101
1102
1114
+
−
1127

FIG-10

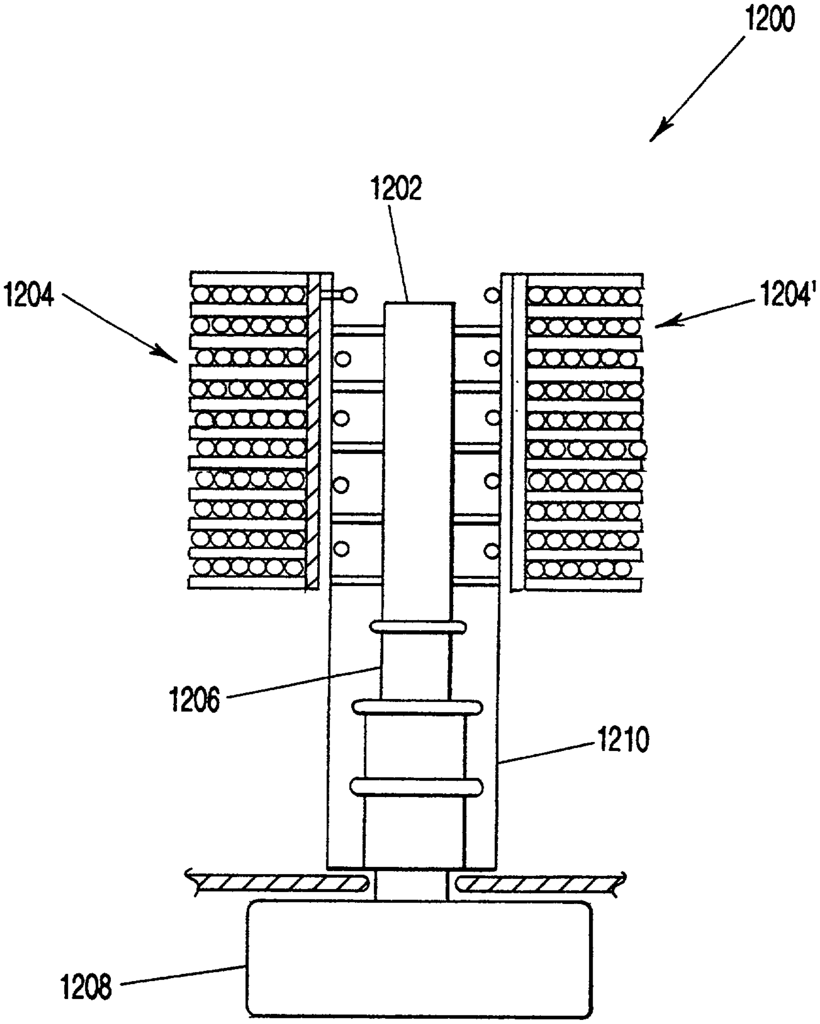

FIG-11

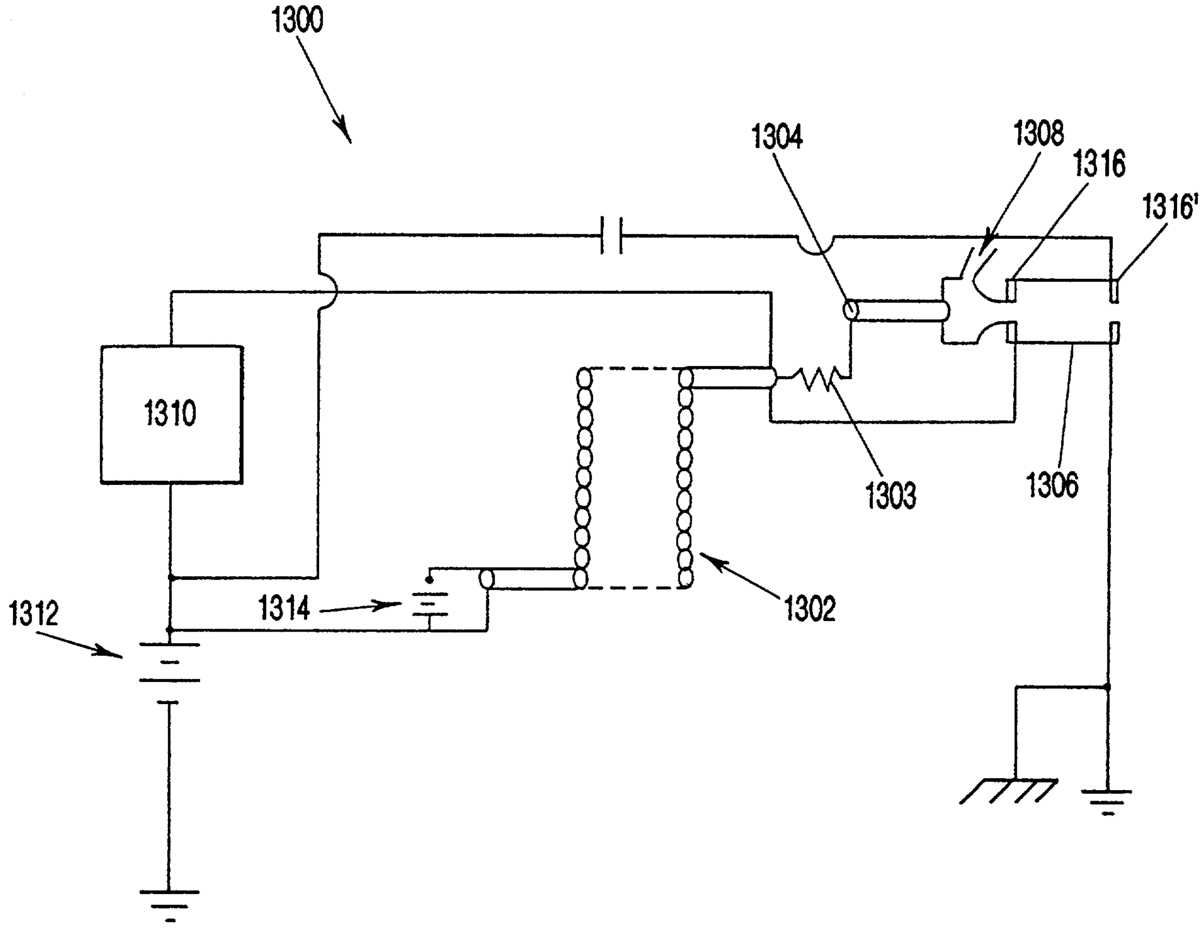

FIG-12

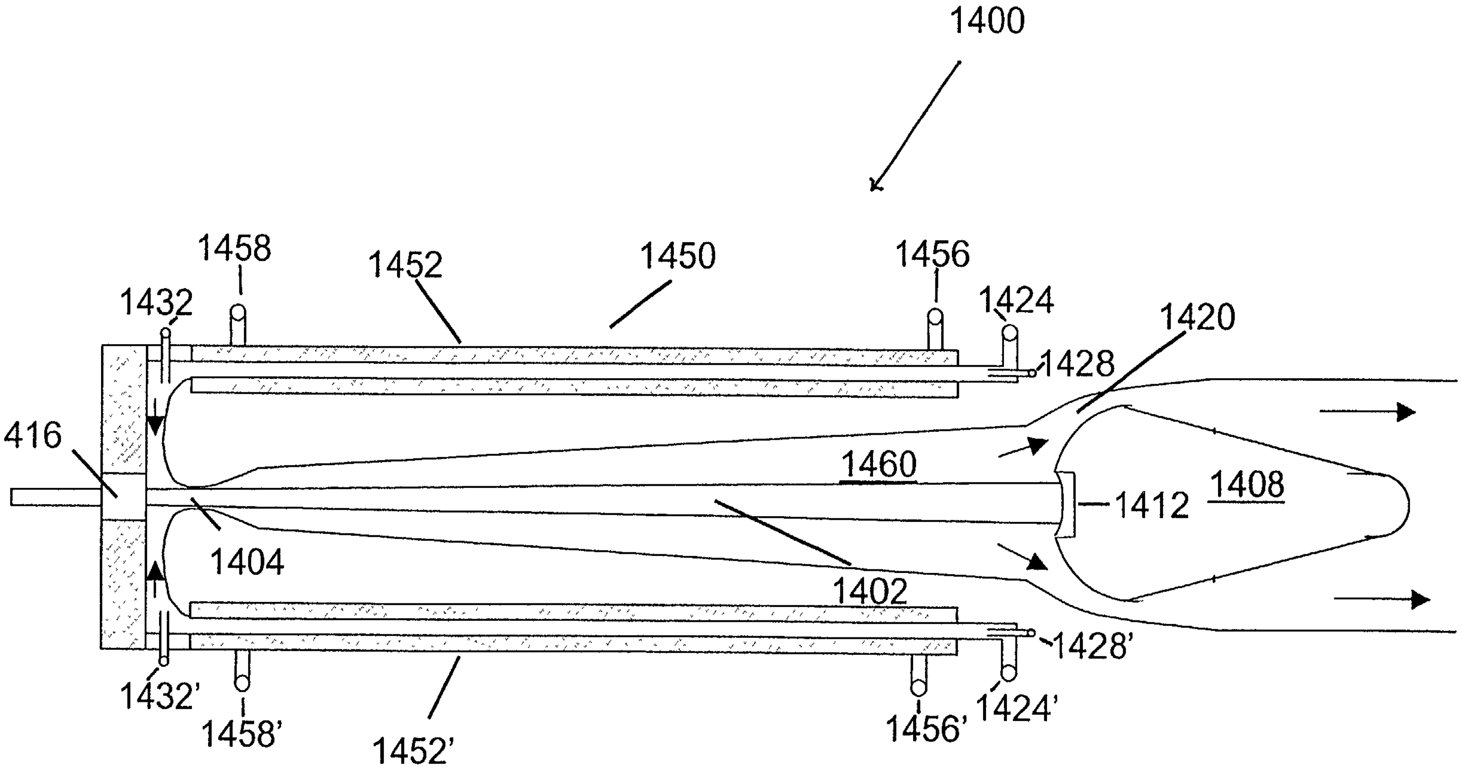
1400
1458
1452
1450
1456
1424
1420
1432
1428
1416
1460
1408
1412
1404
1402
1428'
1432'
1458'
1452'
1456'
1424'

Figure 13

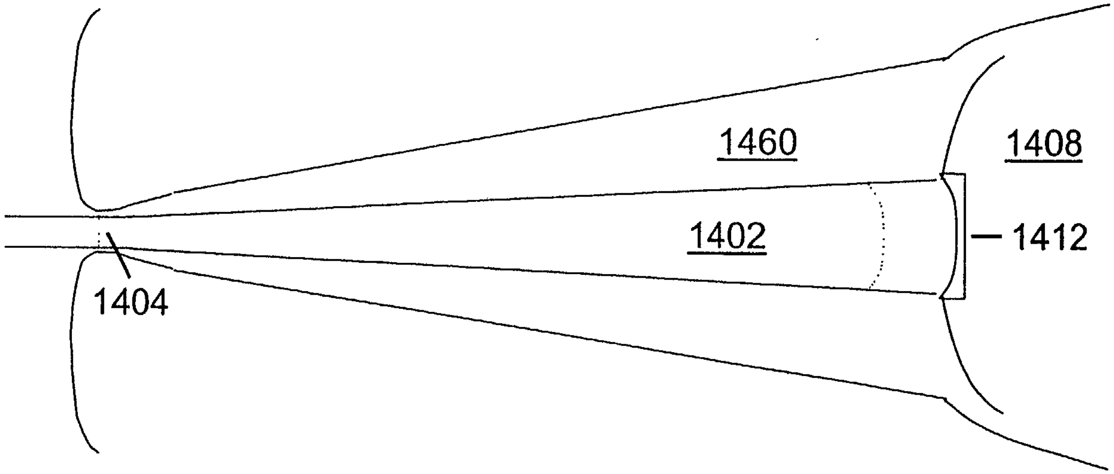

Figure 14